



#10

OIPE

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/074,225A

DATE: 09/27/2002

TIME: 13:43:07

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

3 <110> APPLICANT: DONATE, Fernando
 4 PLUNKETT, Marian L
 5 HARRIS, Scott
 6 MAZAR, Andrew P
 8 <120> TITLE OF INVENTION: HISTIDINE PROLINE RICH GLYCOPROTEIN (HPRG) AS AN ANTI-
 ANGIOGENIC AND
 9 ANTI-TUMOR AGENT
 11 <130> FILE REFERENCE: 38342-178463
 13 <140> CURRENT APPLICATION NUMBER: US 10/074,225A
 14 <141> CURRENT FILING DATE: 2002-02-14
 16 <150> PRIOR APPLICATION NUMBER: US 60/268,370
 17 <151> PRIOR FILING DATE: 2001-02-14
 19 <160> NUMBER OF SEQ ID NOS: 11
 21 <170> SOFTWARE: PatentIn version 3.1
 23 <210> SEQ ID NO: 1
 24 <211> LENGTH: 525
 25 <212> TYPE: PRT
 26 <213> ORGANISM: Homo sapiens
 28 <400> SEQUENCE: 1
 30 Met Lys Ala Leu Ile Ala Ala Leu Leu Leu Ile Thr Leu Gln Tyr Ser
 31 1 5 10 15
 34 Cys Ala Val Ser Pro Thr Asp Cys Ser Ala Val Glu Pro Glu Ala Glu
 35 20 25 30
 38 Lys Ala Leu Asp Leu Ile Asn Lys Arg Arg Arg Asp Gly Tyr Leu Phe
 39 35 40 45
 42 Gln Leu Leu Arg Ile Ala Asp Ala His Leu Asp Arg Val Glu Asn Thr
 43 50 55 60
 46 Thr Val Tyr Tyr Leu Val Leu Asp Val Gln Glu Ser Asp Cys Ser Val
 47 65 70 75 80
 50 Leu Ser Arg Lys Tyr Trp Asn Asp Cys Glu Pro Pro Asp Ser Arg Arg
 51 85 90 95
 54 Pro Ser Glu Ile Val Ile Gly Gln Cys Lys Val Ile Ala Thr Arg His
 55 100 105 110
 58 Ser His Glu Ser Gln Asp Leu Arg Val Ile Asp Phe Asn Cys Thr Thr
 59 115 120 125
 61 Ser Ser Val Ser Ser Ala Leu Ala Asn Thr Lys Asp Ser Pro Val Leu
 62 130 135 140
 65 Ile Asp Phe Phe Glu Asp Thr Glu Arg Tyr Arg Lys Gln Ala Asn Lys
 66 145 150 155 160
 69 Ala Leu Glu Lys Tyr Lys Glu Glu Asn Asp Asp Phe Ala Ser Phe Arg
 70 165 170 175
 73 Val Asp Arg Ile Glu Arg Val Ala Arg Val Arg Gly Gly Glu Gly Thr
 74 180 185 190
 77 Gly Tyr Phe Val Asp Phe Ser Val Arg Asn Cys Pro Arg His His Phe

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/10/074,225A

TIME: 13:43:07

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

```

78          195          200          205
81 Pro Arg His Pro Asn Val Phe Gly Phe Cys Arg Ala Asp Leu Phe Tyr
82          210          215          220
85 Asp Val Glu Ala Leu Asp Leu Glu Ser Pro Lys Asn Leu Val Ile Asn
86 225          230          235          240
89 Cys Glu Val Phe Asp Pro Gln Glu His Glu Asn Ile Asn Gly Val Pro
90          245          250          255
93 Pro His Leu Gly His Pro Phe His Trp Gly Gly His Glu Arg Ser Ser
94          260          265          270
97 Thr Thr Lys Pro Pro Phe Lys Pro His Gly Ser Arg Asp His His His
98          275          280          285
101 Pro His Lys Pro His Glu His Gly Pro Pro Pro Pro Pro Asp Glu Arg
102          290          295          300
105 Asp His Ser His Gly Pro Pro Leu Pro Gln Gly Pro Pro Pro Leu Leu
106 305          310          315          320
109 Pro Met Ser Cys Ser Ser Cys Gln His Ala Thr Phe Gly Thr Asn Gly
110          325          330          335
113 Ala Gln Arg His Ser His Asn Asn Asn Ser Ser Asp Leu His Pro His
114          340          345          350
117 Lys His His Ser His Glu Gln His Pro His Gly His His Pro His Ala
118          355          360          365
121 His His Pro His Glu His Asp Thr His Arg Gln His Pro His Gly His
122          370          375          380
125 His Pro His Gly His His Pro His Gly His His Pro His Gly His His
126 385          390          395          400
129 Pro His Gly His His Pro His Cys His Asp Phe Gln Asp Tyr Gly Pro
130          405          410          415
133 Cys Asp Pro Pro Pro His Asn Gln Gly His Cys Cys His Gly His Gly
134          420          425          430
137 Pro Pro Pro Gly His Leu Arg Arg Arg Gly Pro Gly Lys Gly Pro Arg
138          435          440          445
141 Pro Phe His Cys Arg Gln Ile Gly Ser Val Tyr Arg Leu Pro Pro Leu
142          450          455          460
145 Arg Lys Gly Glu Val Leu Pro Leu Pro Glu Ala Asn Phe Pro Ser Phe
146 465          470          475          480
149 Pro Leu Pro His His Lys His Pro Leu Lys Pro Asp Asn Gln Pro Phe
150          485          490          495
153 Pro Gln Ser Val Ser Glu Ser Cys Pro Gly Lys Phe Lys Ser Gly Phe
154          500          505          510
157 Pro Gln Val Ser Met Phe Phe Thr His Thr Phe Pro Lys
158          515          520          525
161 <210> SEQ ID NO: 2
162 <211> LENGTH: 2051
163 <212> TYPE: DNA
164 <213> ORGANISM: Homo sapiens
166 <400> SEQUENCE: 2
167 atataatata aactaataaa gatcaggaaa taattaatgt ataccgtaat gtagaccgac      60
169 tcaggatatgt aagtagagaa tatgaaggtg aattagataa ttaaagggat ggtttaacaa      120
171 aatgaaggca ctcattgcag cactgctttt gatcacattg cagtattcgt gtgccgtgag      180

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/10/074,225A

TIME: 13:43:07

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

```

173 tcccactgac tgcagtgtg ttgagccgga ggctgagaaa gctctagacc tgatcaacaa 240
175 aaggcgacgg gatggctacc ttttccaatt gctgctgatt gctgatgccc acttgacag 300
177 agtggaataa acaactgtat attacttagt cttagatgtg caagaatcgg actgttcggt 360
179 cctatccagg aaatactgga atgactgtga gccacctgat tccagacgtc catctgaaat 420
181 agtgatcgga caatgtaagg taatagctac aagacattcc catgaatctc aggacctcag 480
183 agtgattgac ttttaactgca ccacaagttc tgtctcttca gcaactggcca ataccaaaaga 540
185 tagtccggtc ctcatagatt tctttgagga tactgagcgc tacagaaaac aagccaacaa 600
187 agcccttgag aagtacaaag aggagaatga tgactttgcc tctttcagag tggaccgaat 660
189 cgagagagtt gcaagagtga gaggagggga aggaactggt tacttcgtgg acttctctgt 720
191 gcggaactgc cccagacacc atttcccag acaccccaat gtctttggat tctgcagagc 780
193 agatttggtc tatgatgtag aagccttgga cttggaaagc ccgaaaaacc ttgtcataaa 840
195 ctgtgaagtc ttcgaccctc aggaacatga gaacatcaat ggtgtaccgc ctcatctggg 900
197 acatcccttc cactggggtg ggcattgagc ttcttctacc accaagcctc cattcaagcc 960
199 ccatggatct agagatcctc atcatcccca caagccacac gaacatggac cccacctcc 1020
201 tccagatgaa agagatcact cacatggacc cccacttcca caaggccctc ctccactatt 1080
203 gcccatgtcc tgcctcaagt gtcaacatgc cacttttggc acaaattggg cccaaagaca 1140
205 ttctcataat aataattcca gtgacctcca tcccataag catcattccc atgaacagca 1200
207 tccccacgga caccatcccc atgcacacca tctcatgaa catgataccc atagacagca 1260
209 tccccatgga caccaccccc atggacacca tctcatgga caccaccccc atggacacca 1320
211 tccccatgga caccatcccc actgccatga tttccaagac tatggacctt gtgaccacc 1380
213 acccataaac caaggtcact gttgccatgg ccacggccca ccacctggg acttaagaag 1440
215 gcgaggccca ggtaaaggac cccgtccctt ccattgcaga caaattggat ctgtgtaccg 1500
217 actccctcct ctaagaaaag gtgaggtgct gccacttctt gaggccaatt ttcccagctt 1560
219 cccattgccg caccacaaac atcctctaaa gccagacaat cagccctttc ctcaatcagt 1620
221 ctctgaatca tgtccaggga agttcaagag tgggtttcca caagtttcca tgttttttac 1680
223 acatacatct ccaaaaataa atgtgattcc tttgaagagg aaaatgaata atacattgaa 1740
225 ttagaacatc aaataaaatg accagtaatt gtgaaaatta cagttctttt caacctactt 1800
227 tcatactgaa gatgcagcaa aatgtgaatg ggaaaagaga tggcctgaga agagagatca 1860
229 aatggaaagg agaggaaaga actcagtgtc gcctattagt agttaattct gtcactcacc 1920
231 actacatcac ttgagacaaa tctatgccac tcagaatctc cttctttcct ggacttaact 1980
233 ctaattctag agtctctgtt actgcttggg ctatacctgg gcataactaa aaagtatggt 2040
235 attgaaacta t 2051
238 <210> SEQ ID NO: 3
239 <211> LENGTH: 526
240 <212> TYPE: PRT
241 <213> ORGANISM: Lepus americanus
243 <400> SEQUENCE: 3
245 Ala Thr Leu Gln Cys Ser Trp Ala Leu Thr Pro Thr Asp Cys Lys Thr
246 1 5 10 15
249 Thr Lys Pro Leu Ala Glu Lys Ala Leu Asp Leu Ile Asn Lys Trp Arg
250 20 25 30
253 Arg Asp Gly Tyr Leu Phe Gln Leu Arg Val Ala Asp Ala His Leu
254 35 40 45
257 Asp Gly Ala Glu Ser Ala Thr Val Tyr Tyr Leu Val Leu Asp Val Lys
258 50 55 60
261 Glu Thr Asp Cys Ser Val Leu Ser Arg Lys His Trp Glu Asp Cys Asp
262 65 70 75 80
265 Pro Asp Leu Thr Lys Arg Pro Ser Leu Asp Val Ile Gly Gln Cys Lys
266 85 90 95

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/10/074,225A

TIME: 13:43:07

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

```

269 Val Ile Ala Thr Arg Tyr Ser Asp Glu Tyr Gln Thr Leu Arg Leu Asn
270      100      105      110
273 Asp Phe Asn Cys Thr Thr Ser Ser Val Ser Ser Ala Leu Ala Asn Thr
274      115      120      125
277 Lys Asp Ser Pro Val Leu Phe Asp Phe Ile Glu Asp Thr Glu Pro Phe
278      130      135      140
281 Arg Lys Ser Ala Asp Lys Ala Leu Glu Val Tyr Lys Ser Glu Ser Glu
282 145      150      155      160
285 Ala Tyr Ala Ser Phe Arg Val Asp Arg Val Glu Arg Val Thr Arg Val
286      165      170      175
289 Lys Gly Gly Glu Arg Thr Asn Tyr Tyr Val Asp Phe Ser Val Arg Asn
290      180      185      190
293 Cys Ser Arg Ser His Phe His Arg His Pro Ala Phe Gly Phe Cys Arg
294      195      200      205
297 Ala Asp Leu Ser Phe Asp Val Glu Ala Ser Asn Leu Glu Asn Pro Glu
298      210      215      220
301 Asp Val Ile Ile Ser Cys Glu Val Phe Asn Phe Glu Glu His Gly Asn
302 225      230      235      240
305 Ile Ser Gly Phe Arg Pro His Leu Gly Lys Thr Pro Leu Gly Thr Asp
306      245      250      255
309 Gly Ser Arg Asp His His His Pro His Lys Pro His Lys Phe Gly Cys
310      260      265      270
313 Pro Pro Pro Gln Glu Gly Glu Asp Phe Ser Glu Gly Pro Pro Leu Gln
314      275      280      285
317 Gly Gly Thr Pro Pro Leu Ser Pro Pro Phe Arg Pro Arg Cys Arg His
318      290      295      300
321 Arg Pro Phe Gly Thr Asn Glu Thr His Arg Phe Pro His His Arg Ile
322 305      310      315      320
325 Ser Val Asn Ile Ile His Arg Pro Pro Pro His Gly His His Pro His
326      325      330      335
329 Gly Pro Pro Pro His Gly His His Pro His Gly Pro Pro Pro His Gly
330      340      345      350
333 His Pro Pro His Gly Pro Pro Pro Arg His Pro Pro His Gly Pro Pro
334      355      360      365
337 Pro His Gly His Pro Pro His Gly Pro Pro Pro His Gly His Pro Pro
338      370      375      380
341 His Gly Pro Pro Pro His Gly His Pro Pro His Gly Pro Pro Pro His
342 385      390      395      400
345 Gly His Pro Pro His Gly His Gly Phe His Asp His Gly Pro Cys Asp
346      405      410      415
349 Pro Pro Ser His Lys Glu Gly Pro Gln Asp Leu His Gln His Ala Met
350      420      425      430
353 Gly Pro Pro Pro Lys His Pro Gly Lys Arg Gly Pro Gly Lys Gly His
354      435      440      445
357 Phe Pro Phe His Trp Arg Arg Ile Gly Ser Val Tyr Gln Leu Pro Pro
358      450      455      460
361 Leu Gln Lys Gly Glu Val Leu Pro Leu Pro Glu Ala Asn Phe Pro Gln
362 465      470      475      480
365 Leu Leu Leu Arg Asn His Thr His Pro Leu Lys Pro Glu Ile Gln Pro

```

RAW SEQUENCE LISTING

DATE: 09/27/2002

PATENT APPLICATION: US/10/074,225A

TIME: 13:43:07

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

```

366          485          490          495
369 Phe Pro Gln Val Ala Ser Glu Arg Cys Pro Glu Glu Phe Asn Gly Glu
370          500          505          510
373 Phe Ala Gln Leu Ser Lys Phe Phe Pro Ser Thr Phe Pro Lys
374          515          520          525
377 <210> SEQ ID NO: 4
378 <211> LENGTH: 1662
379 <212> TYPE: DNA
380 <213> ORGANISM: Lepus americanus
382 <220> FEATURE:
383 <221> NAME/KEY: misc_feature
384 <222> LOCATION: (1604)..(1604)
385 <223> OTHER INFORMATION: N can be A, C, G or T
388 <400> SEQUENCE: 4
389 ggcgccacact gcagtgttcg tgggctttga ctcccactga ctgcaaaaact accaagccct      60
391 tggtctgagaa agctctagac ctgatcaata aatggcgacg ggatggctac cttttccagt      120
393 tgctgcgagt cgctgatgcc cacttgagcg gagcggaatc tgccactgtc tactatttag      180
395 tcttagatgt gaaagagact gactgttcag tgctatccag gaaacactgg gaagactgtg      240
397 acccagatct tactaaacgt ccatctcttg acgtgattgg gcaatgtaag gtgatagcta      300
399 ccagatattc ggatgaatat cagactctaa gattgaatga ctttaactgc accacgagtt      360
401 ccgtctcttc agccctggcc aacactaaag acagtcctgt tctctttgat ttcacgagg      420
403 acacggagcc cttcagaaaa tccgcggaca aagccctgga ggtgtacaaa agtgaaagcg      480
405 aggcgtatgc ctctttcaga gtggaccggg tagagagagt cacaagggtg aaaggaggag      540
407 agagaaccaa ttactatgtg gacttctccg tgaggaactg ctccagggtc cacttccaca      600
409 gacaccccgc ctttggttgc tgcagagcag atctgtcctt tgatgtagaa gcctcgaact      660
411 tggaaaaccc agaagacgtt attataagct gtgaagtctt taactttgag gaacatggaa      720
413 acatcatgag ttttcgaccc catttgggca agactccact tgggactgat ggatccagag      780
415 atcatcatca tcccacaaag ccacataagt ttggatgccc acctcccaa gaaggggaag      840
417 atttctcgga aggaccacca cttcaagggt gaaccccccc actctcccc cccttcaggc      900
419 caagatgtcg tcatcgccct tttggcacca atgaaaccca tcggttccct catcatcgaa      960
421 tttcagttaa catcatccat aggcctccct cccatggaca tcacccccat gggccccctc     1020
423 cccatggaca tcacccccat gggccccctc cccatggaca tctctctcat ggacccccctc     1080
425 cccgacatcc tccccatggg cctctctccc atggacatcc cccccatgga cccctctccc     1140
427 atggacatcc tctcatgga cccctctccc atggacatcc tccccatggg cccctctccc     1200
429 atggacatcc tccccatggc catggtttcc atgaccatgg accctgtgac ccaccatccc     1260
431 ataaagaagg tcccacagac ctccatcagc atgccatggg accaccacct aagcaccag      1320
433 gaaagagagg tccaggtaaa ggacactttc ctttccactg gagaagaatt ggggtctgtt      1380
435 accaactgcc cccactgcag aaaggtgaag tcttccccct tcccgaagcc aattttcccc     1440
437 agcttctctt gcggaaccac acccaccctc taaagcccg gatccagccc ttccctcagg     1500
439 tagcctctga gcgctgtcca gaggagtcca atggtgagtt tgcacaactc tccaagtttt     1560
W--> 441 tcccatctac atttccaaaa tgaaatctga tttccttgat gggnaacaat gaatgatatt     1620
443 ctgtattagc accataaata aaatgtggcc atgatgaatg ca                               1662
446 <210> SEQ ID NO: 5
447 <211> LENGTH: 148
448 <212> TYPE: PRT
449 <213> ORGANISM: Homo sapiens
451 <400> SEQUENCE: 5
453 His Pro His Lys His His Ser His Glu Gln His Pro His Gly His His
454 1          5          10          15

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/074,225A

DATE: 09/27/2002
TIME: 13:43:08

Input Set : A:\EP.txt
Output Set: N:\CRF4\09272002\J074225A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; N Pos. 1604

Seq#:7; Xaa Pos. 1,2

VERIFICATION SUMMARY

DATE: 09/27/2002

PATENT APPLICATION: US/10/074,225A

TIME: 13:43:08

Input Set : A:\EP.txt

Output Set: N:\CRF4\09272002\J074225A.raw

L:441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1560

L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0